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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,512	11/28/2003	Yasushi Shinjo	245842US0RDDIV	7665

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EXAMINER

RODEE, CHRISTOPHER D

ART UNIT PAPER NUMBER

1756

DATE MAILED: 05/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,512

Applicant(s)

SHINJO ET AL.

Examiner

Christopher D RoDee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12, 13 and 20-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12, 13, 20-25, 27-29, 32 and 33 is/are allowed.
- 6) ☒ Claim(s) 26 and 34-37 is/are rejected.
- 7) ☒ Claim(s) 30 and 31 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/023768.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Claim Objections

Claims 30, 31, 35, and 37 are objected to because of the following informalities: the term "electric charger" appears to be synonymous with "charge director" as used in the specification on page 11, line 23. Because there is no clear antecedent basis for the term "electric charger" in the specification as filed the claims are objected to as not having proper basis in the specification. Appropriate correction is required, such as by changing "electric charger" to "charge director".

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 34 and 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. New claims 34 and 35 do not have basis in the specification as filed. These claims state that plurality of colorant particles are fixed on the surface of the resin particles. Applicants state that basis for the amendment is found in the specification in the paragraph spanning pages 3 and 4. There is no disclosure in this passage of "fixing the plurality of colorant particles selectively on the surfaces of the plurality of resin particles".

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 26, 36 and 27 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of the recited solvents in claim 26 is indefinite because these materials are identified by trademark rather than chemical composition. The trademarks do not define a definite composition. Rather, they describe a product whose composition can change depending on the trademark holder's desires. The solvents described by claim 25 are not in compliance with this section because they do not describe a definite composition.

Claims 36 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: those steps that link the adding of the resin particles and plurality of colorant particles to the forming a surface portion and an inside portion of toner particles. It is unclear from the claim as presented if the resin particles are the particles that become the toner particles as a result of the forming step or if some other additional steps are being formed. As presented the claim progresses from adding the resin particles and colorant particles in the manner recited to a general step of forming toner particles but there is no apparent connection between the steps. These claims are indefinite as presented.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suda *et al.* in US Patent Application Publication 2002/0006571.

Suda discloses a process of making a liquid toner. The liquid toner comprises a liquid carrier and dispersed in the carrier liquid toner particles having a binder resin and a colorant (Abstract; ¶ [0006]). The surface of the toner particles have inorganic particles attached or impregnated (¶ [0012]) as a result of placing resin and colorant particles together in the liquid medium in a container, followed by stirring, heating, and cooling (see Example 1). Useful resins include thermoplastic resins (¶ [0017]) and carrier liquids are aliphatic hydrocarbons or silicon oils, among others (¶ [0018]). The resin is insoluble in the carrier liquid at room temperature (¶ [0019]). The inorganic fine particles attached or adhered to the toner particles include silicas and titanium oxides, which are seen as pigment particles because they insoluble, generally white colorants. These materials are in a higher density at the surface of the toner particles than at the ceter because they are attached or adhered to the toner particles. Zirconium naphthenate is added to the insulating solvent to give a positive charge (Example 1).

The reference does not specify that the resin is added to the toner in the form of particles, but the form of the resin as it is added to the container is seen as a matter of design choice because the polymer will be dissolved as a result of the heating process. The artisan would recognize that ^{the} form of the resin as it is added to the container is not critical because that form is changed by the dissolving process. However, the artisan would recognize that a higher

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surface area would optimize the dissolving process and would thus have found it obvious to use the resin in powder form in order to expedite the dissolving process.

The artisan would also have found it obvious to use an electrically insulating solvent in the production process because aliphatic hydrocarbons are suggested for use in the process ([0019]) and the reference discloses specific aliphatic hydrocarbons that also serve as the carrier liquid ([0018]). The use of a single solvent throughout production would reduce cost and complexity in the process as full cleaning of residual solvent would not be required.

Allowable Subject Matter

Claims 12, 13, 20-25, 27-29, and 32 are allowed.

Claim 26 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. JP 61-093603 discloses the addition of magnetic powder to the surface of polymer particles. According to an oral translation of the document, only water is disclosed as the dispersing medium for this treatment (p. 3, lower right paragraph). Water would not be recognized as a electrically insulating solvent.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher D RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on most weekdays from 6 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdr
7 May 2004


CHRISTOPHER RODEE
PRIMARY EXAMINER